



Spark Gap

Vol. 36, Issue 11, November 2020 *MARC - Serving Central Indiana Communities for thirty-six years*

ON OUR M.A.R.C:

Greetings to all the members of the Mid-State Amateur Radio Club! I am looking forward to the next year as President of the club. For those who don't know me, I am Chemist that retired from Eli Lilly & Co. after a 29 year career. I currently do scientific consulting for pharmaceutical companies, and cart my 2 High School kids to all of their activities. I am an Amateur Extra, WC9G, and enjoy DX on SSB, FT8, portable operations such as POTA, the Strawberry Festival, ARRL Field Days, and building electrical/electronic projects, such as antennas, chokes, baluns, etc.... Feel free to contact me if you have questions or suggestions (president@midstatehams.org).

Upcoming Events:

Halloween is soon approaching, which means Goblin Patrol (if Indiana doesn't cancel Halloween due to the COVID-19 pandemic). I am not aware of any other upcoming activities this year.

News:

- Amateur Radio on the International Space Station (ARISS) has a next-generation radio system installed and operational in the Columbus Module. The first element, the InterOperable Radio System (IORS) replaced the Ericsson radio system in operation since mid-2000. The new system offers a higher power radio, voice repeater, digital packet radio (APRS) capabilities, and a Kenwood VC-H1 slow-scan television (SSTV) system. The new voice FM cross-band repeater uses an uplink of 145.99 MHz (CTCSS 67 Hz) and a downlink of 437.800 MHz. Let's make some contacts using the ISS repeater!
- The FCC ordered Amateur access to the 3.3-3.5 GHz band to "sunset." The first will apply to the 3.4 – 3.5 GHz segment, the second to the 3.4 – 3.5 GHz segment. The FCC has yet to establish the effective dates.

******* IMPORTANT Club Meeting Information *******

The MARC monthly meeting will be held this Saturday, November 21, 2020 beginning at 8:00 am in the garage area adjacent to the MARC radio room located at 1 Caisson Dr. in Franklin. Unfortunately, no coffee or donuts will be provided, so bring your own if desired.

The club officers will also broadcast the audio portion of the meeting on-the-air using the MARC VHF repeater, 146.835 MHz (PL 151.4 Hz).

Tim Aldridge, WC9G, President



Birthdays for the month of October:

*AF9SE - Steve Ellis
KC9NJM - Bob Jones
KN9C - Rudy Richardson
KB9JMU - Jim Adams
KC9ZMV - Clifford Whitrock
KD9FBC - Wilson Low
KF9EFG - Johns McGrath
KM9S - Darrell Sego
KI6WBS - Alejandro Santiago*

Birthdays for the month of November:

*W9TEJ - Ron Koons
WB9GCV - Jim Jeffries
K9ICP - Bruce Tisdale
W9YD - John Wampner
W9G - Tim Aldridge*

GOBLIN PATROL 2020

Dave Daily and I would like to thank the following people that helped with Goblin Patrol this year. Chris Frederick, Mike Turner, Wilson Low, Ken Barr, John McGrath and Tim Aldridge. The bridges in parts of Johnson County were covered. We only had Ken come across three people walking the bridge he was on but nothing to really report. It wasn't a bad night to be out there either. Yes, it was boring sitting there with nothing to do but you did a great service to the truckers. According to Chris Frederick, he talked with a few of the truckers and they were happy we were protecting the bridges and keeping them safe.

Great job people!!!

Jacki Frederick & Dave Daily

FIELD DAY 2020 RESULTS

It's official.

After months of recounts the ARRL Field Day results have been tabulated and published in the December 2020 issue of QST magazine.

The results for MARC are even better than first reported in July. The Mid-State ARC scored 2,864 points with ten operators reporting. That is an outstanding score and member participation by any measure.

Due to Covid-19 concerns the ARRL changed the rules and allowed any ham to operate from home using any mode. Like us, most stations around the country operated 1D, or one person at a home station. Over 1.8 million contacts were made by nearly 19,000 participants around the world.



To recap our club results, Bruce K9ICP was our top point getter with 300 followed by Jack-W8ISH with 139. Sam WA9BVG pounded out 119 CW contacts. Rudy-KN9C logged 107, followed by Jim-N9EJR with 70 then Jim-WU9Y with 52 and Steve-AF9SE with 48. Tim-W69C snagged 34 contacts while operating mobile. Tracy-KC9IKY reported several contacts and added extra points for running a GOTA station with his kids.



Our thanks to everyone who helped make Field Day 2020 one of the best in club history.

-Jack w8ish

SKYWARN RECOGNITION DAY

From: michael.lewis <michael.lewis@noaa.gov>
Date: Monday, November 9, 2020
Subject: Skywarn Recognition Day - 2020
To: servo300 <servo300@aol.com>

Skywarn Recognition Day (SRD) is conducted for a 24 hour period each year on the first Saturday of the month of December (actually it starts on Friday evening and concludes Saturday evening.)

This year Skywarn Recognition Day is undergoing a significant change. Based on the current health concerns, the NWS offices will be unavailable for access.

So what is happening?

This year, we will be opening SRD to all trained Skywarn Spotters.

There will be opportunity for amateur radio operators to contact other Skywarn Amateur Radio operators. We are looking to register as many participants as possible.

The newest addition this year is a push to include Social Media content throughout the event. We are looking to engage all Skywarn Spotters (and hopefully encourage more participation!)

We are still working out the details for the guest presentations for SRD, however we do have a few already in place.

Please consider registering for SRD 2020. All the details can be found (and updates will be added) on the Skywarn Recognition Webpage.

<https://www.weather.gov/crh/skywarnrecognition>

If you have other questions, please let me know.

Michael Lewis
NWS Northern Indiana
KG4KJQ

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Jim Moehring, KB9WWM

Section Emergency Coordinator

Amateur Radio Emergency Service

Indiana Section

The W9MID repeater is the official SkyWarn repeater for Johnson County.

160 meters Operations A New experience

by Bruce Tisdale, K9ICP

Since obtaining my General and Amateur Extra licensed, I have enjoyed and spent most of my operating time making contacts on the HF bands. That primarily involved operation on 75, 40, and 20 meters. Part of the reason for this was that my radio and antenna only permitted operations on those bands. Later I was able to expand my operations to 18, 21, 24, 28 and even 6 meters. This was made easy in that wire antennas such as dipoles were shorter and fit the available space in my residential yard space.

However, 160 meters has always been an impossibility because of the need for far greater space for an antenna. For example, a dipole for 160 meters would require a total of 247 feet space. Not many people have that much space unless they live in a county setting. However, given poor conditions on the higher HF bands during recent years and my desire to experience operations on 160 meters, I started to explore antenna designs that might work in smaller spaces. This included magnetic loops, trap designs, and others that could be adapted to limited space. None of these designs worked for me for various reason.

Finally, I came across a 160-meter “sloper” design that I thought might work. This design requires a 40-50 foot height and about 60 foot horizontal space. The high end of the sloper includes an insulated wire coil and a line RF isolator that connects to the coaxial cable. The antenna wire sloping downward is 70 feet but can be trimmed back to match frequency needs unless an antenna tuner is being used.

I believed this could work perfect for me. Because of my small lot space, I needed to make some calculations and measurements. I determined that I would attach the high-end coil at about the 40-foot level of my tower. I had a tree in my front lawn that was about 75-feet from my tower base. Using some basic geometric calculation (Pythagorean = $(a)^2 + (b)^2 = (c)^2$) I was able to determine that I had enough space. If my tower is $(a) = 40$ feet and the sloper wire is $(b) = 70$ feet then (c) the length needed about 76 feet. I had enough space for this to work.

I installed the 160-meter sloper antenna as noted above. While I have only used the antenna a few weeks, I have made several successful contacts on the band (i.e., Tennessee, Virginia, Georgia, Indiana). As you might guess, 160 meters operation is more regional. The winter months are the best time for operations on 160 meters. I have attached a picture showing the antenna on my tower and the tree which the lower end is connected at about eight feet. I'm really looking forward to finally experiencing operations on this band.



Antenna location



Close up of the antenna

Pictures by Bruce, K9ICP

New Edition of Storm Spotting and Amateur Radio Now Available from ARRL

A new edition of the publication ***Storm Spotting and Amateur Radio*** is now available from the ARRL store. Storm spotting gives amateur radio operators another way to use their skills as communicators. In an average year, the US experiences more than 10,000 severe thunderstorms, 5,000 floods, and more than 1,000 tornadoes, often causing hundreds of injuries and deaths, as well as billions of dollars in damages. During these weather events, thousands of ham volunteers provide real-time information to partners like emergency management and forecasters at the National Weather Service. The information they get from hams helps them issue weather watches, warnings, and advisories. *Storm Spotting and Amateur Radio* can help you become one of those volunteers, providing ground-truth information when it is needed most.

New in this edition are lessons learned and response reports from the 2017 hurricane season; Apps and social media resources; new SKYWARN training requirements; and expanded information on digital voice modes such as DMR, D-STAR, and Yaesu System Fusion. The co-author is University of Mississippi Professor of Emergency Management Michael Corey, K11U.

..... ARRL NEWS November 2020

Goblin Patrol was Scary

For our crew of bridge watchers, the mild weather provided a pleasant night to watch for Halloween vandals. For Ken Barr, KD9ALA, it was also a night to remember. That episode in a moment.

Dave Daily-KB9LOT, ran Net Control from the W9MID radio room. As each bridge watcher checked into the Goblin Patrol Net Dave recorded their location, vehicle description and license plate number. That information was passed on to the Johnson county sheriff's dispatch in case anyone called to report a suspicious car on an overpass. Jacki-KI6QOG assisted as backup net control.



Ken-KB9ALA was the first to report suspicious activity as three teenage boys left their car and walked up to the bridge with flashlights. That activity was immediately relayed to the sheriff who sent a car out to investigate. According to Ken the deputy showed up shortly after the boys left the scene. No damage was reported.

John-KF6EFG reported meeting several curious neighbors at his location as they came out to see what he was doing parked on their bridge. Other patrol members reported light traffic at their locations during the evening.

The Pumpkin (Goblin) patrol has been a club activity since the late 80's. Wide spread vandalism to schools, cemeteries, churches and thrown objects from I-65 overpasses on Halloween night prompted then Sheriff Doran Miller to seek help from MARC members.

The most exciting night was when Bernie, KB9AWS, spotted people vandalizing a cemetery near Rocklane and Franklin Road. Bernie ran them out of the cemetery and chased them west toward Greenwood on Rocklane Road. It was a cat and mouse ride until three sheriff's deputies pulled the boys over. As you might expect everyone's adenain was pumping that night.

The bridge watching crews included Tim-WC9G, Chris-KQ9Y, Mike-NV9I and Wilson-KD9FBC.

Thanks to everyone who participated in another successful and mostly uneventful Goblin Patrol.

..... Jack, W8ISH

Tim – WC9G Shack

My “Shack” per se is only a shelf on the wall, but it consists of three radios and a DMR Hotspot. First an Anytone AT-D878UV Plus DMR/Analog HT with Bluetooth for portable and DMR use. For VHF/UHF I have a dual band 2M/70 cm Icom Ic-208H connected to an Arrow J-Pole in the framed attic. This is what I use as Net Control and Net check-In. For HF, I have an Icom-7300 (which I really like) connected through an MFJ-993B auto-tuner to one of two antennas in the attic.

One antenna is a Comet Maldol HVU-8, 8 band antenna that is 8 and a half feet tall, with radials and radiators:

The second, is a 20M Hamstick dipole mainly for FT8. I use N3FJP logging software.

73,
Tim WC9G





Radio Amateurs in Western Pennsylvania to Commemorate KDKA Broadcasting Centennial

Pittsburgh radio station KDKA 100 years of radio broadcasting in November, and Pennsylvania radio amateurs will honor that milestone in a multi-station special event. KDKA dates its broadcasting history to the airing of the Harding-Cox presidential results on November 2, 1920, and the station has been on the air ever since. The special event, which will involve the operation of four stations, will run through the entire month of November.

“More than 100 years ago, many experimenters started delving into a new technology known as wireless, or radio,” said Bob Bastone, WC3O, Radio Officer for the Skyview Radio Society in New Kensington, Pennsylvania. Bastone explained that many of those early pioneers were radio amateurs. “One hundred plus years later, many amateur radio operators are still contributing to wireless technology, while also serving their communities and enhancing international goodwill. Congratulations to KDKA Radio, also known in the early years as amateur radio stations 8XK, 8ZZ, and W8XK.”

Special event stations K3K, K3D, K3A, and W8XK will set up and operate at several locations in Pennsylvania during November. Stations will determine their own modes and schedules. Visit the [W8XK profile](#) on [QRZ.com](#) for information on certificates and QSLs.

What became KDKA initially began broadcasting in 1916 as amateur radio station 8XK, licensed by the Federal Radio Commission (FRC), the predecessor to the FCC. At the time, amateurs were not prohibited from broadcasting. The small station was operated by Dr. Frank Conrad, who was Westinghouse Electric and Manufacturing Company assistant chief engineer. The transmitter ran 75 W, and the broadcasts gained some popularity in Pittsburgh. During World War I, amateur radio operation was suspended due to national security concerns. After the war, 8XK was reorganized as a commercial AM radio station, KDKA. The first transmissions of KDKA originated in a makeshift studio on the roof of Westinghouse K Building in East Pittsburgh.

Ham radio clubs participating in the centennial special event include the North Hills Amateur Radio Club in Pittsburgh — which is planning to operate from KDKA’s 1930s’ transmitter site, where an original tower pier still stands. A 1920s’ transmitter site, in Forest Hills, will serve as another operating location. In addition to the North Hills ARC and Skyview Radio Society, other clubs taking part include the Panther Amateur Radio Club, Steel City Amateur Radio Club, the Wireless Association of South Hills, the Butler County Amateur Radio Public Service Group, and the Washington Amateur Communications Radio Club.

Individual radio amateurs will operate from their own stations, and a small group of hams is planning a portable operation from South Park in suburban Pittsburgh.

Stations will invite the public to visit, while observing the required social distancing protocols.

“We amateur radio operators look forward to contacting thousands of other hams around the world to celebrate this huge milestone in the commercial broadcasting industry,” said Bastone. Contact him for more information. — *Thanks to ARRL Public Information Officer and Allegheny County ARES Emergency Coordinator Bob Mente, NU3Q, for providing the information for this story.*

..... ARRL News October 2020

Buy, Sell or Trade

Last year, Cameron Mayhill, Director of Partnerships, Namikango Mission, bought Don Coulter’s home in Kokomo, Indiana. Don was a very passionate Ham Radio operator and had two towers installed on his property. One is approximately 50 ft and the other is approximately 90 ft. Cameron would really like to have someone remove them. Is anyone in the club interested in purchasing the towers?

Please contact:

Cameron Mayhill | Director of Partnerships Kokomo, Indiana | 765-461-1585 cell
cameron@namikango.org





MID-STATE AMATEUR RADIO CLUB

The Mid-State Amateur Radio Club meets the **THIRD SATURDAY** of each month at the Johnson County REMC 750 International Drive Franklin, IN 46131.

See our website, www.midstatehams.org, for maps on how to get to our meeting.

Everyone is welcome; you do not have to be a *HAM* to attend our meetings or a member of the club.

W9MID Repeater:

146.835/
146.235 MHz
(151.4 Hz PL Tone)

Club Officers:

President: Tim Aldridge - WC9G
Vice President: Jacki Frederick – KI6QOG
Secretary: Chris Read – W9OQ
Treasurer: Chris Mazzarella – KC9VGQ
Repeater Trustee - Chris Frederick – KQ9Y

W9MID Repeater:

443.525/
448.525 MHz
(151.4 Hz PL Tone)

Weekly Net: Sunday evening 7:00 PM ARES/RACES members and ALL RADIO AMATEURS
146.835/146.235 MHz (151.4 Hz PL Tone)

The Official Newsletter of the Mid-State Amateur Radio Club

P.O. Box 836
Franklin, Indiana
46131

Spark Gap Editor: Robert LaGrange N9SIU

Please send your articles to my email: n9siu@yahoo.com no later than the 2nd week of the month.



Special thanks to Johnson County REMC for the use of their community room for meetings and testing.